

# A Comprehensive Review of Accounting and Financial Reporting Principles

By

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## THESIS ABSTRACT

### Nick Egorshin: A Comprehensive Review of Accounting and Financial Reporting Principles

The following Thesis is comprised of twelve case studies that were completed over one year in the course ACCY 420. This course, led by Dr. Victoria Dickinson, challenged students to dive deeper into accounting concepts and principles through the analysis of financial statements presented from real companies. The companies analyzed do business in a variety of industries and disciplines, so students were able to see the accounting process through a multitude of lenses. Some companies examined used foreign currency and adhered to International Accounting policies, so analysis and critical thinking skills were necessary in truly understanding the significance of the transactions being presented and the procedures being utilized. Case studies were completed on a bi-weekly basis and were submitted for review so corrections could be made.

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## **Case Study One**

**Home Heaters: Financial Analysis of Glenwood Heating, Inc. and Eads  
Heaters, Inc.**

**Nick Egorshin**

**Introduction:** The following case provides financial information for two companies that sell home heating units: Glenwood Heating, Inc. and Eads Heaters, Inc. Both companies are being evaluated one year after inception. In that first year, Glenwood and Eads perform and account for identical transactions in operations. These operations are illustrated by the transactions and trial balance in Part A. Part B consists of each company's income statement, balance sheet, and statement of retained earnings. Part B also exhibits the differences in decision making by each company's respective management that resulted in the financial statements produced. An attached appendix contains supporting information that illustrates how these financial statements were compiled. Analysis of each company's finances through the use of financial ratios provide the conclusion that Glenwood Heating, Inc. is the better investment at this time.

### **Part A: First Year Transactions**

**Table 1a: Basic Transactions**

| Home Heaters                    |               |               |                |               |                |               |                  |                |                  |                |                   |
|---------------------------------|---------------|---------------|----------------|---------------|----------------|---------------|------------------|----------------|------------------|----------------|-------------------|
| Part A: First Year Transactions |               |               |                |               |                |               |                  |                |                  |                |                   |
|                                 | Cash          | Accounts Rec  | Inventory      | Land          | Building       | Equipment     | Accounts Payable | Note Payable   | Interest Payable | Common Stock   | Retained Earnings |
| No.1                            | 160,000       |               |                |               |                |               |                  |                |                  | 160,000        |                   |
| No.2                            | 400,000       |               |                |               |                |               |                  | 400,000        |                  |                |                   |
| No.3                            | (420,000)     |               |                | 70,000        | 350,000        |               |                  |                |                  |                |                   |
| No.4                            | (80,000)      |               |                |               |                | 80,000        |                  |                |                  |                |                   |
| No.5                            |               |               | 239,800        |               |                |               | 239,800          |                |                  |                |                   |
| No.6                            |               | 398,500       |                |               |                |               |                  |                |                  |                | 398,500           |
| No.7                            | 299,100       | (299,100)     |                |               |                |               |                  |                |                  |                |                   |
| No.8                            | (213,360)     |               |                |               |                |               | (213,360)        |                |                  |                |                   |
| No.9                            | (41,000)      |               |                |               |                |               |                  | (20,000)       |                  |                | (21,000)          |
| No.10                           | (34,200)      |               |                |               |                |               |                  |                |                  |                | (34,200)          |
| No.11                           | (23,200)      |               |                |               |                |               |                  |                |                  |                | (23,200)          |
| No.12                           |               |               |                |               |                |               |                  |                | (6,650)          |                | (6,650)           |
| <b>Balances</b>                 | <b>47,340</b> | <b>99,400</b> | <b>239,800</b> | <b>70,000</b> | <b>350,000</b> | <b>80,000</b> | <b>26,440</b>    | <b>380,000</b> | <b>(6,650)</b>   | <b>160,000</b> | <b>313,450</b>    |

**Table 1b: Unadjusted Trial Balance**

| Home Heaters                     |                |                |
|----------------------------------|----------------|----------------|
| Unadjusted Trial Balance- Part A |                |                |
|                                  | Debits         | Credits        |
| Cash                             | 47,340         |                |
| Accounts Rec                     | 99,400         |                |
| Inventory                        | 239,800        |                |
| Land                             | 70,000         |                |
| Building                         | 350,000        |                |
| Equipment                        | 80,000         |                |
| Accounts Payable                 |                | 26,440         |
| Note Payable                     |                | 380,000        |
| Interest Payable                 |                | 6,650          |
| Common Stock                     |                | 160,000        |
| Dividend                         | 23,200         |                |
| Sales                            |                | 398,500        |
| Other Operating Expenses         | 34,200         |                |
| Interest Expense                 | 27,650         |                |
| <b>Total</b>                     | <b>971,590</b> | <b>971,590</b> |

**Part B: Glenwood and Eads Financial Statements**

**Table 1c: Glenwood Income Statement**

| <b>Glenwood Heating, Inc.</b>           |        |         |
|---|--------|---------|
| <b>Income Statement</b>                 |        |         |
| <b>For Year Ended December 31, 20X1</b> |        |         |
|   |        |         |
| Sales                                   |        | 398,500 |
| Cost of Goods Sold                      |        | 177,000 |
| Gross Profit                            |        | 221,500 |
| Operating Expenses                      |        |         |
| Bad Debt Expense                        | 994    |         |
| Depreciation Expense- Building          | 10,000 |         |
| Depreciation Expense- Equipment         | 9,000  |         |
| Rent Expense                            | 16,000 |         |
| Other Operating Expenses                | 34,200 | 70,194  |
| Income From Operations                  |        | 151,306 |
| Other Expenses                          |        |         |
| Interest Expense                        |        | 27,650  |
| Income Before Taxes                     |        | 123,656 |
| Provision for Income Taxes              |        | 30,914  |
| Net Income                              |        | 92,742  |
| Earnings Per Common Share               |        | 28.98   |

**Table 1d: Glenwood Statement of Retained Earnings**

| <b>Glenwood Heating, Inc.</b>           |          |
|---|----------|
| <b>Statement of Retained Earnings</b>   |          |
| <b>For Year Ended December 31, 20X1</b> |          |
|   |          |
| Retained Earnings January 1, 20X1       | 0        |
| Plus: Net Income                        | 92,742   |
|   | 92,742   |
| Less: Dividends                         | (23,200) |
| Retained Earnings December 31, 20X1     | 69,542   |

**Table 1e: Glenwood Balance Sheet**

| <b>Glenwood Heating, Inc</b>               |        |         |         |
|--|--------|---------|---------|
| <b>Balance Sheet</b>                       |        |         |         |
| <b>For Year Ended December 31, 20X1</b>    |        |         |         |
| Assets                                     |        |         |         |
| Current Assets                             |        |         |         |
| Cash                                       |        |         | 426     |
| Accounts Receivable                        |        | 99,400  |         |
| Less: Allowance for Bad Debts              |        | (994)   | 98,406  |
| Inventory                                  |        |         | 62800   |
| Total Current Assets                       |        |         | 161,632 |
| Property, Plant, and Equipment             |        |         |         |
| Land                                       |        | 70,000  |         |
| Building                                   |        | 350,000 |         |
| Equipment                                  |        | 80,000  |         |
| Less: Accumulated Depreciation- Building   | 10,000 |         |         |
| Less: Accumulated Depreciation- Equipment  | 9,000  |         |         |
| Total Accumulated Depreciation             | 19,000 |         |         |
| Total Property, Plant, and Equipment       |        |         | 481,000 |
| Total Assets                               |        |         | 642,632 |
| Liabilities and Stockholders' Equity       |        |         |         |
| Current Liabilities                        |        |         |         |
| Accounts Payable                           |        |         | 26,440  |
| Interest Payable                           |        |         | 6650    |
| Total Current Liabilities                  |        |         | 33,090  |
| Long Term Liabilities                      |        |         |         |
| Note Payable                               |        |         | 380,000 |
| Total Liabilities                          |        |         | 413,090 |
| Stockholders' Equity                       |        |         |         |
| Common Stock                               |        | 160,000 |         |
| Retained Earnings                          |        | 69,542  |         |
| Total Stockholders' Equity                 |        |         | 229,542 |
| Total Liabilities and Stockholders' Equity |        |         | 642,632 |

**Table 1f:** Eads Income Statement

| <b>Eads Heaters, Inc.</b>               |        |         |
|---|--------|---------|
| <b>Income Statement</b>                 |        |         |
| <b>For Year Ended December 31, 20X1</b> |        |         |
|   |        |         |
| Sales                                   |        | 398,500 |
| Cost of Goods Sold                      |        | 188,800 |
| Gross Profit                            |        | 209,700 |
| Operating Expenses                      |        |         |
| Bad Debt Expense                        | 4970   |         |
| Depreciation Expense- Building          | 10,000 |         |
| Depreciation Expense- Equipment         | 20,000 |         |
| Depreciation Expense- Leased Equipment  | 11,500 |         |
| Other Operating Expenses                | 34,200 | 80670   |
| Income From Operations                  |        | 129,030 |
| Other Expenses                          |        |         |
| Interest Expense                        |        | 35,010  |
| Income Before Taxes                     |        | 94,020  |
| Provision for Income Taxes              |        | 23,505  |
| Net Income                              |        | 70,515  |
| Earnings Per Common Share               |        | 22.04   |

**Table 1g:** Eads Statement of Retained Earnings

| <b>Eads Heaters, Inc.</b>               |          |
|---|----------|
| <b>Statement of Retained Earnings</b>   |          |
| <b>For Year Ended December 31, 20X1</b> |          |
|   |          |
| Retained Earnings January 1, 20X1       | 0        |
| Plus: Net Income                        | 70515    |
|   | 70515    |
| Less: Dividends                         | (23,200) |
| Retained Earnings December 31, 20X1     | 93715    |



**Table 1h: Eads Balance Sheet**

| <b>Eads Heaters, Inc.</b>                        |        |         |         |
|--|--------|---------|---------|
| <b>Balance Sheet</b>                             |        |         |         |
| <b>For Year Ended December 31, 20X1</b>          |        |         |         |
| <b>Assets</b>                                    |        |         |         |
| <b>Current Assets</b>                            |        |         |         |
| Cash   |        |         | 7835    |
| Accounts Receivable                              |        | 99,400  |         |
| Less: Allowance for Bad Debts                    |        | 4970    | 94,430  |
| Inventory  |        |         | 51,000  |
| Total Current Assets                             |        |         | 153,265 |
| <b>Property, Plant, and Equipment</b>            |        |         |         |
| Land   |        | 70,000  |         |
| Building   |        | 350,000 |         |
| Equipment  |        | 80,000  |         |
| Less: Accumulated Depreciation- Building         | 10,000 |         |         |
| Less: Accumulated Depreciation- Equipment        | 20,000 |         |         |
| Less: Accumulated Depreciation- Leased Equipment | 11,500 |         |         |
| Total Accumulated Depreciation                   | 41,500 |         |         |
| Total Plant, Property, and Equipment             |        |         | 550,500 |
| Total Assets                                     |        |         | 703,765 |
| <b>Liabilities and Stockholders' Equity</b>      |        |         |         |
| <b>Current Liabilities</b>                       |        |         |         |
| Accounts Payable                                 |        |         | 26,440  |
| Interest Payable                                 |        |         | 6650    |
| Total Current Liabilities                        |        |         | 33,090  |
| <b>Long Term Liabilities</b>                     |        |         |         |
| Note Payable                                     |        | 380,000 |         |
| Lease Payable                                    |        | 83,360  | 463,360 |
| Total Liabilities                                |        |         | 496,450 |
| <b>Stockholders' Equity</b>                      |        |         |         |
| Common Stock                                     |        | 160,000 |         |
| Retained Earnings                                |        | 47,315  |         |
| Total Stockholders' Equity                       |        |         | 207,315 |
| Total Liabilities and Stockholders' Equity       |        |         | 703,765 |

### Financial Ratios

| Financial Ratios               |          |       |
|--------------------------------|----------|-------|
|                                | Glenwood | Eads  |
| Current Ratio                  | 4.88     | 4.63  |
| Quick Ratio                    | 2.99     | 3.09  |
| Profit Margin on Sales         | 0.23     | 0.18  |
| Return on Assets               | 0.14     | 0.1   |
| Return on Stockholders' Equity | 28.98    | 22.04 |
| Debt to Assets Ratio           | 0.64     | 0.71  |

**Conclusion:** Analysis of the financial statements and the financial ratios that came from them validates the notion that Glenwood would be the better investment of the two companies. Eads' quick ratio suggests that it has the upper hand on Glenwood in terms of immediate/short term liquidity, but Glenwood outperforms Eads in almost every other aspect. Both companies seem well prepared to satisfy short term obligations, but Glenwood's superior return on assets and favorable debt ratio demonstrate that it is more capable of effectively financing and utilizing its assets. Glenwood's profitability also tops that of Eads. Glenwood's decision to account for inventory using the FIFO method proved to be beneficial as cost accounted for was lower than Eads', resulting in a higher net income. Stockholders will favor Glenwood for its greater profitability and healthy returns, as demonstrated by the return on equity ratio. Glenwood is a better investment than Eads because of its favorable position to handle its obligations as well as its superior profitability.

**Appendix:** Included in the appendix is the supporting information that led to the computation and analysis of Glenwood and Eads' financial statements. Included are the adjusted trial balance, detailed summary of transactions, and adjusting entries for the respective companies.

**A1: Glenwood Trial Balance**

| <b>Glenwood Heating, Inc.</b>         |                |                |
|---------------------------------------|----------------|----------------|
| <b>Adjusted Trial Balance- Part B</b> |                |                |
|                                       | <b>Debits</b>  | <b>Credits</b> |
| Cash                                  | 426            |                |
| Accounts Receivable                   | 99,400         |                |
| Allowance for Bad Debts               |                | 994            |
| Inventory                             | 62,800         |                |
| Land                                  | 70,000         |                |
| Building                              | 350,000        |                |
| Accumulated Depreciation- Building    |                | 10,000         |
| Equipment                             | 80,000         |                |
| Accumulated Depreciation- Equipment   |                | 9,000          |
| Accounts Payable                      |                | 26,440         |
| Interest Payable                      |                | 6,650          |
| Note Payable                          |                | 380,000        |
| Common Stock                          |                | 160,000        |
| Dividend                              | 23,200         |                |
| Sales                                 |                | 398,500        |
| Cost of Goods Sold                    | 177,000        |                |
| Other Operating Expenses              | 34,200         |                |
| Bad Debt Expense                      | 994            |                |
| Depreciation Expense- Building        | 10,000         |                |
| Depreciation Expense- Equipment       | 9,000          |                |
| Rent Expense                          | 16,000         |                |
| Interest Expense                      | 27,650         |                |
| Provision for Income Tax              | 30,914         |                |
| <b>Total</b>                          | <b>991,584</b> | <b>991,584</b> |

## A2: Glenwood Transaction Summary

|                                |                  |                     |                         |                      |                   |          |                       |           |                        |         |  |
|--------------------------------|------------------|---------------------|-------------------------|----------------------|-------------------|----------|-----------------------|-----------|------------------------|---------|--|
| Glenwood Heating, Inc.         |                  |                     |                         |                      |                   |          |                       |           |                        |         |  |
| Part B: Additional Information |                  |                     |                         |                      |                   |          |                       |           |                        |         |  |
|                                |                  |                     |                         |                      |                   |          |                       |           |                        |         |  |
| Assets                         |                  |                     |                         |                      |                   |          |                       |           |                        |         |  |
| Transactions                   | Cash             | Accounts Receivable | Allowance For Bad Debts | Inventory            | Land              | Building | Accum. Depr. Building | Equipment | Accum. Depr. Equipment |         |  |
| Balances: Part A               | 47,340           | 99,400              |                         | 239,800              | 70,000            | 350,000  |                       | 80,000    |                        |         |  |
| Part B (1) Bad Debts           |                  |                     | (994)                   |                      |                   |          |                       |           |                        |         |  |
| Part B (2) COGS                |                  |                     |                         | (177,000)            |                   |          |                       |           |                        |         |  |
| Part B (3) Depreciation        |                  |                     |                         |                      |                   |          |                       |           |                        |         |  |
| Building                       |                  |                     |                         |                      |                   |          | (10,000)              |           |                        |         |  |
| Equipment                      |                  |                     |                         |                      |                   |          |                       |           |                        | (9,000) |  |
| Part B (4) Equipment           |                  |                     |                         |                      |                   |          |                       |           |                        |         |  |
| Rental Payment                 | (16,000)         |                     |                         |                      |                   |          |                       |           |                        |         |  |
| Part B (5) Income Tax          | (30,914)         |                     |                         |                      |                   |          |                       |           |                        |         |  |
| Balances                       | 426              | 99,400              | (994)                   | 62,800               | 70,000            | 350,000  | (10,000)              | 80,000    | (9,000)                |         |  |
|                                |                  |                     |                         |                      |                   |          |                       |           |                        |         |  |
| Liabilities                    |                  |                     |                         |                      |                   |          |                       |           |                        |         |  |
| Transactions                   | Accounts Payable | Note Payable        | Interest Payable        | Stockholders' Equity |                   |          |                       |           |                        |         |  |
|                                |                  |                     |                         | Common Stock         | Retained Earnings |          |                       |           |                        |         |  |
| Part B (1) Bad Debts           | 26,440           | 380,000             | 6,650                   | 160,000              | 313,450           |          |                       |           |                        |         |  |
| Part B (2) COGS                |                  |                     |                         |                      | (994)             |          |                       |           |                        |         |  |
| Part B (3) Depreciation        |                  |                     |                         |                      | (177,000)         |          |                       |           |                        |         |  |
| Building                       |                  |                     |                         |                      | (10,000)          |          |                       |           |                        |         |  |
| Equipment                      |                  |                     |                         |                      | (9,000)           |          |                       |           |                        |         |  |
| Part B (4) Equipment           |                  |                     |                         |                      |                   |          |                       |           |                        |         |  |
| Rental Payment                 |                  |                     |                         |                      | (16,000)          |          |                       |           |                        |         |  |
| Part B (5) Income Tax          |                  |                     |                         |                      | (30,914)          |          |                       |           |                        |         |  |
| Balances                       | 26,440           | 380,000             | 6,650                   | 160,000              | 69,542            |          |                       |           |                        |         |  |

**A3: Glenwood Adjusting Entries**

| <b>Adjusting Entries (Glenwood)</b> |                                |                        |         |         |
|-------------------------------------|--------------------------------|------------------------|---------|---------|
| 31-Dec                              | Bad Debt Expense               |                        | 994     |         |
|                                     |                                | Allowance for Bad Debt |         | 994     |
| 31                                  | Cost of Goods Sold             |                        | 177,000 |         |
|                                     |                                | Inventory              |         | 177,000 |
| 31                                  | Depreciation Expense-Building  |                        | 10,000  |         |
|                                     |                                | Accum Depr- Building   |         | 10,000  |
|                                     | Depreciation Expense-Equipment |                        | 9,000   |         |
|                                     |                                | Accum Depr- Equipment  |         | 9,000   |
| 31                                  | Rent Expense                   |                        | 16,000  |         |
|                                     |                                | Cash                   |         | 16,000  |
| 31                                  | Income Tax Expense             |                        | 30,914  |         |
|                                     |                                | Cash                   |         | 30,914  |

**A4: Eads Trial Balance**

| <b>Eads Heaters, Inc.</b>                  |                  |                  |
|--|------------------|------------------|
| <b>Adjusted Trial Balance- Part B</b>      |                  |                  |
|  | <b>Debits</b>    | <b>Credits</b>   |
| Cash                                       | 7,835            |                  |
| Accounts Receivable                        | 99,400           |                  |
| Allowance for Bad Debts                    |                  | 4,970            |
| Inventory                                  | 51,000           |                  |
| Land                                       | 70,000           |                  |
| Building                                   | 350,000          |                  |
| Accumulated Depreciation- Building         |                  | 10,000           |
| Equipment                                  | 80,000           |                  |
| Accumulated Depreciation- Equipment        |                  | 20,000           |
| Leased Equipment                           | 92,000           |                  |
| Accumulated Depreciation- Leased Equipment |                  | 11,500           |
| Accounts Payable                           |                  | 26,440           |
| Interest Payable                           |                  | 6,650            |
| Note Payable                               |                  | 380,000          |
| Lease Payable                              |                  | 83,360           |
| Common Stock                               |                  | 160,000          |
| Dividend                                   | 23,200           |                  |
| Sales                                      |                  | 398,500          |
| Cost of Goods Sold                         | 188,800          |                  |
| Other Operating Expenses                   | 34,200           |                  |
| Bad Debt Expense                           | 4,970            |                  |
| Depreciation Expense- Building             | 10,000           |                  |
| Depreciation Expense- Equipment            | 20,000           |                  |
| Depreciation Expense- Leased Equipment     | 11,500           |                  |
| Interest Expense                           | 35,010           |                  |
| Provision for Income Tax                   | 23,505           |                  |
| <b>Total</b>                               | <b>1,101,420</b> | <b>1,101,420</b> |

## A5: Eads Transaction Summary

|  |                  |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
|--|------------------|---------------------|-------------------------|------------------|----------------------|-------------------|-----------------------|-----------|------------------------|------------------|--------------------|--|
| Eads Heaters, Inc.                         |                  |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
| Part B: Additional Transaction Information |                  |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
|  |                  |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
| Assets                                     |                  |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
| Transactions                               | Cash             | Accounts Receivable | Allowance for Bad Debts | Inventory        | Land                 | Building          | Accum. Depr. Building | Equipment | Accum. Depr. Equipment | Leased Equipment | Accum. Depr. Lease |  |
| Balances: Part A                           | 47,340           | 99,400              |                         | 239,800          | 70,000               | 350,000           |                       | 80,000    |                        |                  |                    |  |
| Part B (1) Bad Debts                       |                  |                     | (4,970)                 |                  |                      |                   |                       |           |                        |                  |                    |  |
| Part B (2) COGS                            |                  |                     |                         | (188,800)        |                      |                   |                       |           |                        |                  |                    |  |
| Part B (3) Depreciation                    |                  |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
| Building                                   |                  |                     |                         |                  |                      |                   | (10,000)              |           |                        |                  |                    |  |
| Equipment                                  |                  |                     |                         |                  |                      |                   |                       |           | (20,000)               |                  |                    |  |
| Part B (4) Equipment                       |                  |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
| Lease                                      |                  |                     |                         |                  |                      |                   |                       |           |                        | 92,000           |                    |  |
| Lease Payment                              | (16,000)         |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
| Depreciation                               |                  |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
| Part B (5) Income Tax                      | (23,505)         |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
| Balances                                   | 7,835            | 99,400              | (4,970)                 | 51,000           | 70,000               | 350,000           | (10,000)              | 80,000    | (20,000)               | 92,000           | (11,500)           |  |
|  |                  |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
| Liabilities                                |                  |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
| Transactions                               | Accounts Payable | Note Payable        | Lease Payable           | Interest Payable | Stockholders' Equity |                   |                       |           |                        |                  |                    |  |
| Part B (1) Bad Debts                       | 26,440           | 380,000             |                         | 6,650            | Common Stock         | Retained Earnings |                       |           |                        |                  |                    |  |
| Part B (2) COGS                            |                  |                     |                         |                  | 160,000              | 313,450           |                       |           |                        |                  |                    |  |
| Part B (3) Depreciation                    |                  |                     |                         |                  |                      | (188,800)         |                       |           |                        |                  |                    |  |
| Building                                   |                  |                     |                         |                  |                      | (10,000)          |                       |           |                        |                  |                    |  |
| Equipment                                  |                  |                     |                         |                  |                      | (20,000)          |                       |           |                        |                  |                    |  |
| Part B (4) Equipment                       |                  |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
| Lease                                      |                  |                     | 92,000                  |                  |                      | (7,360)           |                       |           |                        |                  |                    |  |
| Lease Payment                              |                  |                     | (8,640)                 |                  |                      | (11,500)          |                       |           |                        |                  |                    |  |
| Depreciation                               |                  |                     |                         |                  |                      | (23,505)          |                       |           |                        |                  |                    |  |
| Part B (5) Income Tax                      |                  |                     |                         |                  |                      |                   |                       |           |                        |                  |                    |  |
| Balances                                   | 26,440           | 380,000             | 83,360                  | 6,650            | 160,000              | 47,315            |                       |           |                        |                  |                    |  |

**A6: Eads Adjusting Entries**

| <b>Adjusting Entries (Eads)</b> |                                 |                        |         |         |
|---------------------------------|---------------------------------|------------------------|---------|---------|
| 31-Dec                          | Bad Debt Expense                |                        | 4,970   |         |
|                                 |                                 | Allowance for Bad Debt |         | 4,970   |
| 31                              | Cost of Goods Sold              |                        | 188,800 |         |
|                                 |                                 | Inventory              |         | 188,800 |
| 31                              | Depreciation Expense-Building   |                        | 10,000  |         |
|                                 |                                 | Accum Depr- Building   |         | 10,000  |
|                                 | Depreciation Expense- Equipment |                        | 20,000  |         |
|                                 |                                 | Accum Depr- Equipment  |         | 20,000  |
| 31                              | Leased Equipment                |                        | 92,000  |         |
|                                 |                                 | Lease Payable          |         | 92,000  |
| 31                              | Interest Expense                |                        | 7,360   |         |
|                                 | Lease Payable                   |                        | 8,640   |         |
|                                 |                                 | Cash                   |         | 16,000  |
| 31                              | Income Tax Expense              |                        | 23,505  |         |
|                                 |                                 | Cash                   |         | 23,505  |

Honor Pledge: On my honor, I pledge that I have neither given, received, nor witnessed any unauthorized help on this case study.

Signed: Nick Egorshin

## **Case Study Two**

### **Molson Coors Brewing Company: Income Statement Analysis**

**Nick Egorshin**



**Introduction:** The following case study presents various financial statements of Molson Coors Brewing Company and supplemental information related to those statements. The objective of the case is to gain a greater understanding of the income statement as it relates to Molson Coors. In order to do so, one must explain why the income statement is classified as well as analyze various aspects of the income statement to illustrate the implications certain items may have on the company's net income.

a. The major classifications on an income statement include the following sections:

- i. Operating Section
- ii. Non-operating Section
- iii. Income Tax
- iv. Discontinued Operations
- v. Non-controlling Interest
- vi. Earnings Per Share

- i. The operating section consists of the revenues and expenses incurred directly from the company's principal operations. Revenues are generated when a product or service is sold. The cost of those goods sold is subtracted from revenue to arrive at gross profit. Operating expenses are then subtracted from gross profit to arrive at income from operations.
- ii. The non-operating section consists of revenues and expenses that are incurred from the secondary or peripheral activities of the company. This may include dividend revenue, interest expense, and other peripheral items such as a gain or loss on the sale of an asset.
- iii. Once non-operating revenues and expenses are accounted for, we arrive at income before tax. The given tax rate is then applied to that amount of income and the resulting income tax is subtracted. If there are no discontinued operations, the result is the arrival at net income. If the company discontinued a major component of the business, this income is referred to as income from continuing operations.
- iv. Discontinued operations are the measureable gains or losses realized as a result of the termination of a component of the business. These gains or losses are applied to the income from continuing operations with the applicable taxes already factored in. This computation brings us to the realization of net income.
- v. When a company has partial ownership in other companies or is partially owned by another company, they are either referred to as the controlling or non-controlling shareholders of the company. The non-controlling

interest is the amount of net income that is attributable to non-controlling shareholders. Non-controlling interest can be used to find income attributable to controlling stockholders of the respective company. To do so, one must subtract non-controlling interest from net income.

- vi. Once the income statement is complete and net income is realized, earnings per share data must be stated on the face of the income statement. "Earnings per share" is the amount of net income realized per share of common stock issued. It is computed by subtracting preferred dividends from net income and then dividing by the number of common shares outstanding. If non-controlling interest is noted in the income statement, one must use the income attributable to controlling stockholders of the company to compute earnings per share.
- b. Under Generally Accepted Accounting Principles (GAAP), U.S. companies are required to provide "classified" income statements in order to present adequate and complete financial information to potential lenders, creditors, and investors. Classification of the income statement makes it easier to read and identify specific items that are affecting the financial position of the company. Classification also ensures the understandability and verifiability of the income statement, which makes it easier to determine whether all necessary information is fully disclosed.
- c. Measurement of persistent income provides insight into the activities that consistently impact the company. Financial statement users are interested in the measurement of persistent income because it allows them to analyze the specific items or activities that affect the net income of the company. Through this analysis, users will be able to make accurate estimates and assumptions about the future financial performance of the company.
- d. Comprehensive income includes all items that affect equity, **except** investments by owners and distributions to owners. Comprehensive income consists of a component called "other comprehensive income", which refers to non-owner changes in equity that bypass the income statement. These "other comprehensive income" items are typically an unrealized gain or loss from holding a security or other item that is affected by changes in fair value. Because fair value is constantly changing, companies denote a gain or loss as a result of a change in fair value in the comprehensive income statement.
- e. Sales are the revenues realized through the sale of a product or performance of a service. Companies often provide discounts to maintain customer relationships

as well as allow for returns of inadequate products. Net sales are computed by subtracting those discounts and returns from the sales revenue. Reporting sales and net sales separately allows readers to gain a sufficient understanding of how much the company discounted sales or how much product they allowed to be sent back. Readers also gain insight into the actual revenue that could be realized if the company scaled back those discounts or returns, which is useful information for making future decisions.

- f. “Special items, net” represent charges incurred or benefits realized that are not believed to be indicative of the company’s core operations. In Molson Coors’ case, these are items that are not directly impacted by the brewing or selling of their beer.
  - i. Molson Coors includes infrequent/unusual items, impairment or abandonment-related losses, restructuring charges and atypical employee-related costs, and fees on the termination of agreements and gains (losses) on disposal of investments. Molson Coors notes that while these items may be infrequent or unusual, they are not necessarily non-recurring.
  - ii. Molson Coors classifies these special items separately because they are not derived directly from the brewing or selling of beer. However, they are still classified under operating expenses because while they are not derived directly from the company’s operations, they do occur as a consequence of the company’s operations. These items would have to be totally unrelated to Molson Coors’ operations for them to be considered non-operating expenses.
- g. “Other income (expense), net” refers to gains and losses not at all related to the brewing and selling of beer. These differ from special items in that they are not in any way related to, as a consequence of, or as a benefit to the central operations of the company. They include items such as gains or losses on foreign exchange and on sales of non-operating assets.
- h. Comprehensive income in 2013 was \$760.2 million, while net income was \$567.3 million. This surplus is as a result of items that bypass the income statement. For Molson Coors, these are mainly attributed to investment type activities whose fair value has changed. Some of these items include pension and other postretirement benefits, unrealized gain (loss) on derivative instruments, and ownership share of unconsolidated subsidiaries’ other comprehensive income.

J. Molson Coors' effective tax rate in 2013 is 12.8 percent. This is computed by dividing the income tax expense by the income from continuing operations before income taxes. The computation of the effective tax rate is below:

$$\text{Effective tax rate} = \$84 \text{ million} / \$654.5 \text{ million}$$

**Conclusion:** The case study above provides insight into the aspects of the income statement that affect the resulting net income. One common theme realized throughout the analysis of Molson Coors' financial information is the significance that information has on the forecasts/estimates that users of the financial statements will make. Income statement items must be disclosed clearly and in detail in order for users to be able to make accurate assumptions and estimates. Molson Coors' finances also illustrate the strategic decisions they have made in regard to taxes and investments that both save and make money for the company. Upon examination of Molson Coors' financial statements and the supplemental information related to them, readers are able to gain a deeper understanding of the significance of the income statement as well as the specific items that consistently make an impact on the company's net income.

On my honor, I pledge that I have neither given, received, nor witnessed any unauthorized help on this case study.

Signed: Nick Egorshin

### **Case Study Three**

#### **Pearson plc: Analysis of Accounts Receivable**

**Nick Egorshin**

**Introduction:** The following case focuses on the analysis of accounts receivable for Pearson plc. In order to benefit from such analysis and gain an understanding of accounts receivable, one must be familiar with the terminology associated with it as well as the contra-accounts that affect it. Examination of various financial statements and their supplemental notes also helped provide a clearer understanding of accounts receivable and the activities that affect it.

- a. An account receivable is an asset account that refers to the performance of a service or sale of a good on credit. This means that the customer that received the product or service has not yet paid for it. Accounts receivable are current assets, meaning the collection of payment is expected within the current accounting period. Accounts receivable may also be recognized as “trade receivables” or simply “receivables”.
- b. A note receivable account is created when a company loans money out to another party in exchange for a written promise to pay that money back. Accounts receivable differs from notes receivable in that it is primarily correlated to the sale of a product as opposed to the issuance of debt. Notes receivable can be considered a current or long-term asset depending on the terms of the note (when that money is expected to be paid back). Unlike accounts receivable, notes often have an interest rate associated with them.
- c. A contra-account is an account that is intended to directly contradict the balance of its associated account. For instance, a contra-asset account is intended to carry a credit balance, so when that asset is reported in the balance sheet, the gross amount will be shown net of the amount from the contra-account. Pearson’s trade receivables account is shown net of the “provision for bad and doubtful debts” and of the “provision for sales returns”. Managers often consider historical data when estimating these contra-accounts, such as the likelihood of a customer to pay off their account based on past transactions. Managers may also compare data from their company with that of similar companies in order to get an idea of what those estimates should look like.
- d. The percentage of sales method of estimating uncollectible accounts is a procedure that is realized by allocating a fixed percentage of credit sales as the amount of uncollectible debts. The aging-of-accounts procedure is computed by allocating various probabilities of not collecting based on how long those accounts have been delinquent. The longer the account has been delinquent, the greater the probability the debt will not be collected. Managers need to know how much credit sales the company incurred as well as the percentage of those

sales that are expected to remain uncollectible. If using the aging of accounts method, managers need data on how long each delinquent account has been outstanding. The aging-of-accounts method is more accurate as it logically takes into consideration the amount of time an account has been outstanding. By doing so, accounts that have been outstanding for a very short period of time will be considered on a much smaller scale than those that have been uncollected for a long period of time.

- e. In order for a business to remain healthy, it must generate revenue to make a profit. This revenue does not always come in the form of direct cash payments, as most customers often receive a good or service on credit. Allowing customers to pay on credit proves risky, as they sometimes do not satisfy their debt, but allowing them to do so is a matter of convenience. In addition, if the customer is another business, purchasing on credit grants them time to generate revenues of their own in order to pay off the product they bought on credit. Managers should reconsider the decision to sell a product on credit if a particular customer is consistently delinquent on their account.
  
- f. i. The beginning balance of allowance for doubtful accounts is 72 million pounds. The debit for five million pounds results from exchange rate differences incurred in the year. The credit for twenty-six million represents the estimation of allowance for doubtful accounts, while the debit for twenty million represents the actual write off of accounts receivable. The credit for three million pounds represents the bad debts acquired through business combination.

| Allowance for Doubtful Accounts (£ Millions) |    |
|--|----|
| 5  | 72 |
| 20   | 26 |
|  | 3  |
|  | 76 |

- ii.
 

|  |            |
|--|------------|
| (1) <b>Bad Debts Expense</b>           | 26,000,000 |
| <b>Allowance for Doubtful Accounts</b> | 26,000,000 |

Bad Debts Expense is an income statement account and Allowance for Doubtful Accounts is a balance sheet account.

(2) **Allowance for Doubtful Accounts** 20,000,000

**Accounts Receivable** 20,000,000

Allowance for Doubtful Accounts and Accounts Receivable are balance sheet accounts.

iii. The provision for bad and doubtful debts is included in the operating expenses section of the income statement. It is also known as Bad Debts Expense.

g. i.

| <b>Provision for Sales Returns (£ Millions)</b> |     |
|---|-----|
| 443   | 372 |
|   | 425 |
|   | 354 |

ii. (1) **Sales Returns and Allowances** 425,000,000

**Provision for Sales Returns** 425,000,000

Sales Returns and Allowances is a contra-account to sales revenue, so it is an income statement account. Provision for Sales Returns is a balance sheet account.

(2) **Provision for Sales Returns** 443,000,000

**Accounts Receivable** 443,000,000

Provision for Sales Returns and Accounts Receivable are both balance sheet accounts.



iii. The estimated sales returns account is factored into net sales. Sales returns and allowances are subtracted from gross sales to arrive at net sales.

h.

| Trade Receivables (£ Millions) |         |
|--------------------------------|---------|
| 1474                           | (2)5216 |
| 5624 (1)                       | (3)20   |
|                                | (4)443  |
| 1419                           |         |

|  |               |
|--|---------------|
| (1) <b>Accounts Receivable</b>             | 5,624,000,000 |
| <b>Sales</b>                               | 5,624,000,000 |
| (2) <b>Cash</b>                            | 5,216,000,000 |
| <b>Accounts Receivable</b>                 | 5,216,000,000 |
| (3) <b>Allowance for Doubtful Accounts</b> | 20,000,000    |
| <b>Accounts Receivable</b>                 | 20,000,000    |
| (4) <b>Provision for Sales Returns</b>     | 443,000,000   |
| <b>Accounts Receivable</b>                 | 443,000,000   |

**Conclusion:** The Pearson plc case study focused primarily on accounts receivable. The case begins with important concepts and terminology necessary to truly grasp the way accounts receivable behaves and the effects it has on the company's financials. One of those concepts is the use of contra-accounts to realize the net value of the receivables. Contra-accounts used include the allowance for doubtful accounts and sales returns and allowances. The case study requires thorough analysis of those contra accounts. The use of T-accounts and the given beginning and ending balances of the contra-accounts required the user to dig deeper into the provided financial statements in order to

determine which activities resulted in those ending balances. Finally, the user was able to apply the effects of those activities to the gross receivables account, which allowed total cash collections to be realized.

On my honor, I pledge that I have neither given, received, nor witnessed any unauthorized help on this Case Study Signed Nick Egorshin

### **Case Study Four**

**Pearson plc: Analysis of Cash Receipts and Disbursements**

**Nick Egorshin**

The following is an exercise from Chapter 7 of the Intermediate Accounting book. This chapter covers Receivables.

**P7-1**

Francis Equipment Co. closes its books regularly on December 31, but at the end of 2017 it held its cash book open so that a more favorable balance sheet could be prepared for credit purposes. Cash receipts and disbursements for the first 10 days of January were recorded as December transactions. The information is given below:

1. January cash receipts recorded in the December cash book totaled \$45,640, of which \$28,000 represents cash sales, and \$17,640 represents collections on account for which cash discounts of \$360 were given.
2. January cash disbursements recorded in the December check register liquidated accounts payable of \$22,450 on which discounts of \$250 were taken.
3. The ledger has not been closed for 2017
4. The amount shown as inventory was determined by a physical count on December 31, 2017

- (a) Prepare any entries you consider necessary to correct Francis's accounts at December 31

(1) 12/31

|                 |        |        |
|-----------------|--------|--------|
| Accounts Rec    | 18,000 |        |
| Cash            | 28,000 |        |
| Sales           |        | 45,640 |
| Sales Discounts |        | 360    |

Explanation: The Accounts receivable account is journalized in its gross amount because when the receivable was initially issued, it was accounted for in its entirety (\$18,000). The Sales discount was taken out later on and is represented by its own account, which is seen in the credit column. Cash is the stated \$28,000 in cash sales. Sales of 45,640 were also stated, which consists of the total sales realized in the cash and accounts receivables accounts, net of the sales discount.

(2) 12/31

|                    |        |        |
|--------------------|--------|--------|
| Cash               | 22,200 |        |
| Purchase Discounts | 250    |        |
| Accounts Payable   |        | 22,450 |

Explanation: The liquidation of Accounts payable means the company was able to incur debt to receive cash immediately. The payable account is shown in the gross amount as purchases discounts is its own account.

(3) There is not enough information to prepare entries to close. If there were, the closing process consists of closing revenues to income summary, then expenses to income summary, then the difference (net income) to Retained earnings.

(4) There is no journal entry for the physical count of the goods.

(b) To what extent was Francis Equipment Co. able to show a more favorable balance sheet at December 31 by holding its cash book open? (compute working capital and the current ratio)

- Working Capital=CA-CL
- Current Ratio=CA/CL

#### **Before:**

Current Assets= 148,000

Current Liabilities= 59,200

WC=88,800

CR=2.5

#### **After:**

Current Assets= (39,000-45,640+22,200)+42,000+67,000= 124,560

Current Liabilities= 81,650

WC= 42,910

CR= 1.52

The decision to leave the cash book open for 10 days actually proved detrimental to the balance sheet. The December 31 balances for assets were actually higher than after the book was left open. The Liabilities were higher after adjustments were made. It seems as though the decision to liquidate accounts payable was not beneficial to the balance sheet, it in fact was detrimental to it.

**Case Study Five**

**Palfinger AG: Analysis of Property, Plant and Equipment**

**Nick Egorshin**

**Introduction:** The following case consists of the financial statements of Palfinger AG, a manufacturer that produces heavy machinery and equipment for the construction, agricultural, recycling, and hauling industries. The case focuses on the analysis of the company's property, plant, and equipment account. Analysis of this account will uncover the implications of certain actions and decisions that need to be made when considering the accounting of property, plant, and equipment. This analysis includes a deeper look into depreciation methods, various types of property, plant, and equipment, and the affects of the disposal of these assets.

- a. Palfinger is a manufacturer that produces large-scale equipment for the construction, transportation, agricultural, recycling, and haulage industries. Palfinger owns warehouses to store its large inventory items, a great deal of machinery for the production of those items, and vehicles to transport its inventory. It also owns a manufacturing facility and the land that that facility and its warehouses are located.
- b. The amount of property, plant, and equipment on the balance sheet is the book value of those assets at year-end. It is represented by the cost of the respective assets, less the accumulated depreciation on them.
- c. The notes to the financial statements indicate that aside from buildings, plant, and machinery, Palfinger also owns buildings as third-party investments and "fixtures, fittings, and equipment".
- d. The subaccount "Prepayments and assets under construction" is also referred to as "self-constructed assets". This account consists of assets that the company decided to build themselves. When a company decides to construct its own assets, it is difficult to assign costs to them because there is no explicit acquisition cost. Because this is the case, Palfinger has to allocate costs and expenses based on the labor and materials used. The account has no accumulated depreciation because only an asset that is available for use can be depreciated. The reclassification amount represents the amount of assets whose construction was completed, as well as the amount of prepayments that have been fully realized throughout the year.
- e. Palfinger utilizes the straight-line depreciation method. Straight-line depreciation is beneficial for assets with an expected life of 10 or more years because the company is guaranteed a write off to depreciation in every year of the asset's productive life. This is a reasonable method for Palfinger to use because they own a great deal of assets that have a useful life of more than 10 years and because it is a simple, effective method of calculating depreciation. Palfinger's management likely



considered many trade-offs when deciding which depreciation method to use. Palfinger could have used the activity method, which would provide a clearer indication of the life of the asset based on units produced or hours worked. However, Palfinger also likely owns assets that are more likely to depreciate over time rather than through use, which the activity method does not account for. Additionally, the use of the double-declining method of depreciation would provide Palfinger a more accurate depiction of depreciation over time, as more depreciation would be written off initially and less depreciation is written off over the life of the asset. The downfall to this method is that the company would not be able to realize some of the write offs it would in later years had it used the straight-line method.

- f. Renovations and value-enhancing modifications are capitalized and depreciated over either the new or original useful life of the asset that is being renovated/enhanced. At least one condition of the following criteria must be met for those costs to be capitalized: (1) The useful life of the asset must be increased (2) The quantity of units produced from the asset must be increased (3) The quality of the units produced must be enhanced. The alternative approach would be to capitalize and depreciate the individual improvements, which would ensure that the improvement is sufficiently depreciated to reduce its carrying amount almost to zero.
- g. i. The purchase price of new property, plant, and equipment is the sum of all additions made to PPE throughout 2017. This amount is stated in the notes to the financial statements as €61,444.
- ii. IAS 20 is the International Accounting Standard for considering government grants and disclosing other assistance. The government grants for Palfinger amount to €733. As per IAS 20, a government grant is used to compensate a company for particular assets that meet the appropriate conditions defined in the terms of the grant. These grants are either realized as deferred income or deducted from the carrying value of the respective assets. In Palfinger's case, the grants are deducted from the assets.
- iii. The depreciation expense for 2007 is €12,557 as stated in the notes to the financial statements.
- iv. The net book value of disposals is calculated by subtracting the depreciation of disposals (€12,298) from the original cost of the assets being disposed (€13,799). The net book value of disposals is €1,501.

h. A gain of €154 is realized by subtracting the net book value of €1,501 from the proceeds on the sale of PPE, €1,655. This gain is the difference between the fair value of the asset, what someone is offering to pay for the asset, and the book value of the asset, the original cost minus the accumulated depreciation.

i. Straight-line rate:  $\frac{10,673 - 1,273}{5} = 1,880/\text{yr}$   
 Double Declining Balance Rate:  $\frac{1}{5} * 2 = 40$  percent

| Depreciation Method      | Book Value | Depreciation Expense | Net Book Value |
|--------------------------|------------|----------------------|----------------|
| Straight-line            | €10,673    | €1,880               | €8,793         |
| Double-Declining Balance | €10,673    | €4,269               | €6,404         |

j. i. Journal entry to recognize loss on sale of equipment (in thousands €)

|                           |       |        |
|---------------------------|-------|--------|
| Cash                      | 7,500 |        |
| Accumulated Depreciation  | 1,880 |        |
| Loss on Sale of Equipment | 1,293 |        |
| Equipment                 |       | 10,673 |

The loss on the sale of equipment would be reported in the “other expenses or losses” section of the income statement and would result in a €1,293 reduction in net income.

ii. Journal entry to recognize gain on sale of equipment (In thousands €)

|                           |       |        |
|---------------------------|-------|--------|
| Cash                      | 7,500 |        |
| Accumulated Depreciation  | 4,269 |        |
| Equipment                 |       | 10,673 |
| Gain on Sale of Equipment |       | 1,096  |

The gain on the sale of equipment would be reported in the “other revenues or gains” section of the income statement and would result in a €1,096 increase in net income.

iii. The gain realized by the sale of equipment under the double declining balance method certainly makes it seem like the more favorable option in

respect to net income. However, when considering the greater depreciation expense under this method and comparing it to that of the straight-line method, the effect on net income actually ends up being the same. Both methods result in a total reduction of €3,173 to net income.

**Conclusion:** The analysis of Palfinger AG's property, plant, and equipment account uncovers many of the aspects and implications of the decisions that need to be made in regard to these assets. For instance, the decisions made in regard to the depreciation method utilized can result in noticeable affects to the net income of the company as well as the value of the assets it holds. These effects will not only implicate the company's bottom line, but also the financial ratios that illustrate the economic health of the company. Additionally, this case exhibits the measures that need to be taken to account for various types of property, plant, and equipment. One type of asset that requires particularly special attention is a self-constructed asset. These assets are valued based on the labor and materials that go into constructing them, which requires more attention than simply acquiring an asset at market value. Palfinger AG's property, plant, and equipment account provides an abundance of information that is very telling about the nature of these assets.

## **Case Study Six**

### **Volvo: Analysis of Research and Development Costs**

**Nick Egorshin**

**Introduction:** The following case study consists of the analysis of Volvo group's financial statements, specifically in regard to research and development costs and their effects on those financial statements. Analysis of the financial statements as well as their respective notes unveils a great deal of information about how R&D spending and the differences in GAAP and IFRS standards can significantly impact decision making for managers. The following case study illustrates these impacts by evaluating the capitalization of development costs, the differences in IFRS and GAAP in regards to R&D, and the effects R&D costs have on the financials of the company over time.

- a. Research and development expenses include expenditures related to research and expenditures related to development that do not result in a high certainty of financial value for the company. These expenses are recognized in the operating expenses section of the income statement and are associated with efforts by the company to gain new knowledge, conduct experiments, design and develop new products, and even test the feasibility of introducing a new product/service line.
- b. Volvo must consider whether development expenditures have resulted in a high certainty that they will translate into future financial value for the company. If so, those expenditures can be capitalized and reported as Intangible Assets. In order for development expenditures to be capitalized, Volvo must also determine if those expenditures are for the use or sale of the respective intangible asset, if the asset is capable of being used or sold, the means by which that asset will provide future economic benefit, and if the company is able to accurately track expenditures attributed to the asset's development. These conditions are all per IAS-38. All other development expenditures and all research expenditures are to be expensed as incurred.
- c. Intangible assets are amortized using a straight-line method, meaning a fixed amount will be amortized each year over the life of the asset. Volvo would need to consider how long those intangible assets would generate value and at what point the asset will no longer be relevant or of use for the company.
- d. The standards set by IFRS encourage companies to invest more in R&D, which suggests it also encourages innovation. The standards under GAAP are less beneficial to companies' financials as all R&D costs are expensed, thus directly impacting net income. If a company is able to prove that the asset will most likely be able to generate value, it seems reasonable for that value to be reflected in the balance sheet as opposed to the opposite happening by directly reducing net income. This is why the standards set by IFRS are a better reflection of the effects of R&D spending.
- e.

- I. The net amount of capitalized product and software development costs is 11,409 million SEK and is factored into the “intangible assets” line of the balance sheet.

II.

| Product and Software Development (SEK millions) |       |
|---|-------|
| 12,381  | 2,830 |
| 2,602   | 448   |
| 11,409  |       |

f.

I.

| (in SEK millions)   | 2007   | 2008   | 2009   |
|---|--------|--------|--------|
| 1) Product and software development costs capitalized during the year     | 2,057  | 2,150  | 2,602  |
| 2) Total R&D expense on the income statement                              | 11,059 | 14,348 | 13,139 |
| 3) Amortization of previously capitalized costs (included in R&D expense) | 2,357  | 2,864  | 2,830  |
| 4) Total R&D costs incurred during the year                               | 10,759 | 13,634 | 12,911 |

III. Volvo capitalized 19.12 percent of total R&D costs in 2007, 15.77 percent in 2008 and 20.15 percent in 2009.

g.

I.

| (in SEK millions)                | 2007    | 2008    | 2009    |
|----------------------------------|---------|---------|---------|
| Net Sales, industrial operations | 276,795 | 294,932 | 208,487 |
| Total assets                     | 321,647 | 372,419 | 332,265 |

II.

| Proportion of R&D costs (%) | 2007 | 2008 | 2009 |
|-----------------------------|------|------|------|
| Navistar                    | 3.15 | 3.70 | 3.83 |
| Volvo                       | 3.87 | 4.62 | 6.19 |

Volvo spent a similar proportion of R&D on net assets to Navistar in 2007, but significantly increased those expenditures over the next two years in comparison to

Navistar. This is likely due to IFRS standards being more suitable to R&D spending than GAAP.

**Conclusion:** The analysis of Volvo's research and development costs unveiled important aspects of R&D spending and their effect on the company's financials. Specifically, the case highlights the impact that the difference in IFRS standards and GAAP standards has on R&D spending. IFRS allows for the capitalization of some development costs, while GAAP requires all R&D expenditures to be expensed as occurred. As noted in the case, this results in much more R&D spending over time and allows companies to invest in R&D without taking a direct hit to their income statement. The case also highlights some of the factors that go into decision making in regards to R&D expenditures. For example, managers must be sure that a particular development venture will translate to future value in order to capitalize development costs under IFRS. Overall, analysis of the Volvo Group's R&D costs provides insight into how those costs impact the financials of the company and how managers should approach decision making in regards to R&D.

### **Case Study Seven**

## **Volvo: Analysis of the effects of Blockchain Technology on the Accounting Industry**

**Nick Egorshin**



## **The Blockchain Revolution**

The emergence of Bitcoin and other similar crypto currencies has resulted in the dawn of a digital revolution that many do not even know about. Many are familiar with Bitcoin, a digital currency that allows people to transfer money nearly instantly without the use of an intermediary to verify that payment. However, most do not realize that the underlying technology behind Bitcoin is what truly has the potential to completely revolutionize the way we exchange value. This technology is called Blockchain. Blockchain technology essentially consists of a shared ledger on which any transaction that occurs will be posted. Transactions are verified within an hour, as opposed to days, by users of very powerful computers known as “miners”. These miners have computers that solve extremely complex mathematical equations. Once an equation is cracked, a “block” is mined and added to the Blockchain. Blockchain is hailed for its security, as it is virtually unhackable. In order for a hacker to gain information from one individual block on the Blockchain, they must unpack the information from every block that came before it; a feat that would take significantly more computing power than even a large corporation could generate.

The secure and verifiable nature of Blockchain certainly makes it an appealing technology for an industry that is built on those two qualities. Blockchain has the potential to completely revolutionize the way the accounting industry operates. In the short term, this change will consist of adjustments to current accounting systems to accommodate the use of crypto currencies for transactions. This will likely involve sweeping changes to current accounting principals as well as the introduction of entirely new principals. However, the functionality and potential of what Blockchain technology can accomplish is what truly has the potential to seriously disrupt the accounting field.

With the overall market cap of crypto currencies surpassing the \$175 billion mark, the accounting industry is certainly moving quickly to adapt to the emergence of the digital transactions being executed with these crypto currencies. Crypto-payment processor Verady recently partnered with Aprio, a CPA-led business firm, to launch its platform VeraNet. VeraNet is an accounting and audit platform designed to address the challenges associated with the accountability of crypto currencies. VeraNet and similar platforms that are inevitably going to emerge as a response to this crypto revolution are not only going to add an entirely new element to the accounting industry, but are also absolutely necessary for the industry if we as an economy plan to widely adopt the use of crypto currencies in our everyday lives. This is further illustrated by the fact that the American Institute of CPAs and Wall Street Blockchain Alliance are currently working together to nail down the actual principals and policies that will be necessary to fully integrate crypto currencies into our current accounting systems. The companies that issue and use crypto currencies need these policy changes just as much as the industry needs them. Clear guidelines and methodologies need to be established in order for companies to know how to properly account for crypto transactions. Just as important are the principals and policies that need to be in place in order for the accounting industry to continue to ensure that companies are not engaging in malicious or fraudulent activities. Change in the industry is inevitable and clearly already in the works as the widespread use of crypto currencies continues to grow.

While sweeping changes are already occurring, the majority of the change that will likely result from the emergence of Blockchain technology is still to come. The very essence of what Blockchain technology accomplishes with its verification and security measures certainly seems indicative of the needs of the accounting industry. A white paper released by Deloitte illustrates how Blockchain will be able to satisfy those needs. The use of a distributed ledger with

Blockchain technologies means that two companies that are on the same ledger will always have identical records for the transactions that occur between them. This means that rather than accounting for transactions through the use of receipts after the transaction occurs, transactions will be recorded and posted in real time to both companies' books.

Another Blockchain application is in the form of Smart Contracts that are coded on a platform called Ethereum. These Smart Contracts essentially consist of a set condition that an action must meet and once that condition is met, the contract automatically executes. The automatic execution of contracts may not seem like it would have implications for the accounting industry, but it certainly does. This means that companies could theoretically code Smart Contracts to execute every time a transaction occurs. What this would do is it would automatically post, journalize, or even implement the transaction directly to a company's books or financial statements, thus eliminating a majority of the manual work a managerial accountant performs. Auditors would essentially have nothing to verify if transactions are automatically verified as they occur. The Accounting field will need to strongly consider the implications that Blockchain could potentially have on the industry, as a total revolution in how accounting is practiced is likely somewhere on the horizon.

**Case Study Eight**

**Rite Aid Corporation: Analysis of Long Term Debt**

**Nick Egorshin**

**Introduction:** The following case consists of an analysis of the long-term debt held by Rite Aid Corporation. Rite Aid holds a variety of different notes with varying interest rates, maturity dates, and other requirements set as terms of the notes. Rite Aid holds senior, fixed rate, and convertible notes, many of which are guaranteed by the company's wholly owned subsidiaries. Featured in the case are examples of the issuance of some of Rite Aid's notes as well as the payment and accrual of interest. Analysis of these entries helps illustrate the effects of these notes on the company's finances.

- a.
  - i. Rite Aid's secured debt is debt that is backed by some sort of collateral. This collateral is usually an asset with a measurable value like property. Since secured debt is backed by collateral, the creditor has the right to seize whichever assets were used to back the secured debt if Rite Aid were to fail to make their payments. Unsecured debt is debt that is taken out with no collateral pledged. Unsecured debt typically has higher interest rates and is harder to collect should the debtor default on payments. Rite Aid distinguishes between these two types of debts because it is necessary for those analyzing Rite Aid's finances to understand how much debt is outstanding, how much of the company's assets are pledged as collateral to that debt, and how much the company stands to lose should it fail to fulfill its debts.
  - ii. When debt is guaranteed, it means that someone guarantees the creditor that regardless of what happens to the company, that guarantor will pay the company's debt off. The guarantor in Rite Aid's case is the corporation's wholly owned subsidiaries. A guarantee is common when unsecured debt is issued and may be utilized to obtain more favorable terms on that debt.
  - iii. **Senior debt** is debt that takes priority over other unsecured or junior debt obligations. This debt is the first to be paid off should the company go out of business. Senior debt is typically issued with some sort of collateral and is often less risky. **Fixed rate debt** refers to debt issued with a fixed coupon rate over a specified period of time. This means the payments made will be the exact same over the life of the debt regardless of the state of the market. **Convertible debt** is debt issued with the option to convert the equivalence of the debt outstanding to shares of common stock as a means of payment.
  - iv. Rite Aid has different types of debt at different interest rates because the company takes debt on when it has specific objectives it seeks to fulfill. Different objectives/obligations of the company call for different types of debt. Rite Aid likely takes into account how much money they will need, how much liquidity they expect to have to pay debt off, and the duration of specific projects/obligations when considering what type of debt to take on. Rite Aid also likely takes more subjective qualities into account when taking on debt such as who the creditor it's paying back is and what type of favorable relationships can be made through its financing obligations.

**b.** As of February 27, 2010, Rite Aid has a total debt amount of \$6,370,899,000. \$11,117,000 of the total debt is to be paid in during the coming fiscal year. The total debt is realized by adding Rite Aid's total net long term-debt and its total lease financing obligations (\$6,185,633 + \$133,764).

**c.** i. The face value of the debt is \$500,000,000. The amount of the debt outstanding was the same from 2009-2010, meaning the debt was issued at par and there is no discount or premium to amortize.

ii. The journal entry for issuance is as follows (in thousands)

|               |         |         |
|---------------|---------|---------|
| Cash          | 500,000 |         |
| Notes Payable |         | 500,000 |

iii. The annual interest expense is calculated by multiplying the principal (\$500,000) by the coupon rate of the note (7.5%). The journal entry is recorded as follows (in thousands):

|                  |        |        |
|------------------|--------|--------|
| Interest Expense | 37,500 |        |
| Interest Payable |        | 37,500 |

iv. The entry to pay the note off is as follows:

|               |         |         |
|---------------|---------|---------|
| Notes Payable | 500,000 |         |
| Cash          |         | 500,000 |

**d.** i. The face value of the debt is \$410,000,000, as stated in note 11. The carrying value as of February 27, 2010 is \$405,951,000. The values differ because the note was issued at a discount, meaning it was issued below face value.

ii. Rite Aid paid \$38,438,000 in cash interest during fiscal year 2009.

iii. The total interest expense realized during fiscal year 2009 was \$39,143,000. This consisted of the \$38,438,000 cash interest plus the \$705,000 discount amortization. Since the note was issued at a discount, the discount amortized each year is added to the principal value until maturity. At maturity, the bond should be retired at face value.

iv. Journal entry for recording interest expense (in thousands):

|                           |        |        |
|---------------------------|--------|--------|
| Interest Expense          | 39,143 |        |
| Discount on Notes Payable |        | 705    |
| Cash                      |        | 38,438 |

v. The total rate of interest is also known as the effective rate. The cash interest for this note is realized by multiplying the stated rate by the principal value. However, total interest also includes the amortized discount or premium, so that amount must be factored in when calculating the effective rate. The effective rate for 2009 is realized by dividing the total interest expense (\$39,143,000) by the prior period carrying value (\$405,246,000).

- e.** i. The notes due June 2016 were issued at a discount (98.2% of the face value). The Journal entry for issuance is as follows:

|                           |         |         |
|---------------------------|---------|---------|
| Cash                      | 402,620 |         |
| Discount on Notes Payable | 7,380   |         |
| Notes Payable             |         | 410,000 |

ii. The effective annual interest rate is computed by dividing the total interest expense for the period (\$40,750,000) by the value of the bond at issuance (\$402,620,000). The effective annual rate comes out to be 10.121%.

iii.

| Date    | Cash int  | Int exp    | Discount amort | CV                | Effective Int |
|---------|-----------|------------|----------------|-------------------|---------------|
| 6/30/09 | -         | -          | -              | 402,620.00        |               |
| 6/30/10 | 39,975.00 | 40,750.00  | 775.00         | 403,395.00        | 0.101212061   |
| 6/30/11 | 39,975.00 | 40,828.41  | 853.41         | 404,248.41        | 0.101212      |
| 6/30/12 | 39,975.00 | 40,914.79  | 939.79         | 405,188.21        | 0.101212      |
| 6/30/13 | 39,975.00 | 41,009.91  | 1,034.91       | 406,223.11        | 0.101212      |
| 6/30/14 | 39,975.00 | 41,114.65  | 1,139.65       | 407,362.77        | 0.101212      |
| 6/30/15 | 39,975.00 | 41,230.00  | 1,255.00       | 408,617.77        | 0.101212      |
| 6/30/16 | 39,975.00 | 41,357.02  | 1,382.02       | <b>409,999.79</b> | 0.101212      |
|         |           | Total Disc | <b>7,380</b>   |                   |               |

iv. The journal entry to accrue interest on February 27, 2010 is as follows (in thousands).

|                           |        |        |
|---------------------------|--------|--------|
| Interest Expense          | 27,176 |        |
| Discount on Notes Payable |        | 517    |
| Interest Payable          |        | 26,650 |

v. The net book value of the notes on February 27, 2010 is \$403,137,000.

## Conclusion:

The case study above features different notes that Rite Aid has issued to comprise its total debt. Through analysis of the entries of those notes, one gains a greater understanding of how the recording of those notes effects various aspects of the company's finances. Rite Aid's notes on its debt help clarify the terms of those notes as well as give some context as to the funding collected for activities the company is trying to complete. Debt has effects on assets, as cash is credited every time interest is paid, net income, as interest expense is realized each time interest is paid, and liabilities, as the more notes that are issued, the more payables the company will be taking on.



On my honor, I pledge that I have neither given, received, nor witnessed any unauthorized help on this Case Study.

Signed: Nick Egorshin

**Case Study Nine**  
**Analysis of Stockholders Equity: Merck & Co.**  
**Nick Egorshin**

**Introduction:** The following case study consists of an analysis of Merck Corporation's statement of stockholders' equity. Upon further analysis into the transactions Merck made in 2007 in regard to common stock and treasury stock, one gains a more complete understanding of how the issuance of stock, repurchase of treasury shares, and declaration of dividends, all move about and affect many aspects of the financial statements. Analysis of these aspects of Merck's statement of stockholders' equity is below.

- a. i. Merck is authorized to issue 5.4 billion shares of common stock at a par value of one cent.

ii. As of December 31, 2007, Merck issued 2,983,508,675 shares of common stock.

iii. The dollar value of common stock reported on the balance sheet is calculated by multiplying the number of shares issued (2,983,508,675) by the par value of the common stock (\$0.01). The calculation is as follows:

$$2,983,508,675 \times 0.01 = \$29.84 \text{ million}$$

iv. As of December 31, 2007, Merck held 811,005,791 shares of treasury stock.

v. The number of common shares outstanding is calculated by subtracting the number of treasury shares (811,005,791) from the number of shares issued (2,983,508,675) as of December 31, 2007. The calculation is as follows:

$$2,983,508,675 - 811,005,791 = 2,172,502,884 \text{ common shares outstanding}$$

vi. The total market capitalization for Merck on December 31, 2007 is calculated by multiplying the number of common shares outstanding (2,172,502,884) by the market price of the stock for that day (\$57.61). The calculation is as follows:

$$2,172,502,884 \times \$57.61 = \$125,157,891,147.24$$

- c. Companies pay dividends to ensure their stockholders a return on their investment. A mature company that already has a solid financial base may not need to re-invest as much of its cash back into the business as a small business or start up would need to. If a company is already well established in its product lines, business strategy, and market sectors it operates in,

there is likely a limited amount of growth the company can achieve. However, the benefit of investing in a well established company is that the risk of that company failing is far lower than that of a start up. This results in stable, consistent profits, which are then distributed in the form of dividends to shareholders. Investors are typically aware when investing in an established company that they may not experience a great deal of growth on their initial capital, but they will be guaranteed a set amount of income each time dividends are paid. Once dividends are paid, the company's value diminishes by the amount of dividends paid. Thus, the company's share price falls.

**d.** Companies repurchase their own shares in order to essentially invest in itself. In terms of market sentiment, a stock buyback indicates that the company is confident in where it is headed and that the shareholders of the stock should expect growth, as the company certainly does. From a financial perspective, a stock buy back means that repurchased shares will be absorbed by the company, thus reducing the amount of shares outstanding. Less outstanding shares inherently results in increased value for each shareholder as they hold a greater ownership stake due to less claims on the company's earnings.

**f.** The journal entry to summarize Merck's common dividend activity for 2007 is as follows (in \$ millions):

|                          |         |         |
|--------------------------|---------|---------|
| <b>Retained Earnings</b> | 3,310.7 |         |
| <b>Dividends Payable</b> |         | 3.4     |
| <b>Cash</b>              |         | 3,307.3 |

**g.** i. Merck uses the cost method to account for treasury stock transactions. In the Stockholders' Equity portion of the balance sheet, treasury stock is recorded as "Less treasury stock, at cost".

ii. As stated in note 11, Merck repurchased 26.5 million shares in 2007.

iii. In total, Merck paid \$1,429.7 million for treasury stock in 2007. This amount is stated in the statement of cash flows and represents cash flows from financing activities. The per share amount of treasury stock purchased is calculated by dividing the amount spent on treasury stock (\$1,429.7 million) by the number of shares purchased (26.5 million). The calculation is as follows:

$$1,429.7/26.5 = \$53.95 \text{ per share}$$

iv. An asset is defined as a resource owned by an entity or individual that is expected to generate an economic return. Merck's treasury stock certainly holds value, but unlike if the company were to invest in another company's stock, treasury stock generates no return. It is faulty to assume that since a company can sell treasury stock to acquire funds, that that transaction is indicative of an economic gain. A company cannot own a part of itself, thus when treasury stock is purchased, both assets and stockholders' equity are reduced.

i.

| (\$ in millions except per share)        | 2007          | 2006          |
|--|---------------|---------------|
| <b>Dividends paid</b>                    | 3,307.30      | 3,322.60      |
| <b>Shares Outstanding</b>                | 2,172,502,884 | 2,167,785,445 |
| <b>Net Income</b>                        | 3,275.40      | 4,433.80      |
| <b>Total Assets</b>                      | 48,350.70     | 44,569.80     |
| <b>Operating Cash Flows</b>              | 6,992.20      | 6,765.20      |
| <b>Year-end stock Price</b>              | 57.61         | 41.94         |
| <b>Dividends per share</b>               | 1.52          | 1.53          |
| <b>Dividend yield</b>                    | 2.64%         | 3.65%         |
| <b>Dividend payout</b>                   | 1.0097        | 0.7494        |
| <b>Dividends to total assets</b>         | 0.0684        | 0.0745        |
| <b>Dividends to operating cash flows</b> | 0.4730        | 0.4911        |

**Conclusion:** Analysis of Merck Corporation's stockholders' equity section as well as other financial statements reveals the impact of financing activities such as issuing stock, repurchasing stock, and paying dividends, on all financial statements. The issuance of stock must be reported in the statement stockholders' equity, yet it must also be reflected in that section of the balance sheet. The repurchase of treasury stock decreases both assets and stockholders' equity, but it is also reported in the financing activities section of the statement of cash flows. Analysis of the dividends paid results in a decline in stock price as well as a reduction in cash. With all of this information, financial statement users are able to perform deeper analysis to not only show what is happening, but to comment further on the overall performance of the company. Section i of the case study illustrates the various ratios that can be utilized to show a company's progression. Analysis of transactions regarding stockholders' equity results in a deeper

understanding of how those transactions are widely impactful across all of a company's financial statements.

## **Case Study Ten**

### **Analysis of Marketable Securities: State Street Corporation**

**Nick Egorshin**

**Introduction:** The following case consists of an analysis of State Street Corporation's financial statements specifically in regard to its investment securities. State Street is a major financial holding company; therefore the majority of their products are investment securities. A deeper look into State Street's financial statements reveals the differences between various investment securities, how those differences affect the financial statements, and the journal entries necessary to reconcile those differences.

- a. i. Trading securities are investment securities that are bought and held for a short period of time with the intent to sell in the near future.
- ii. Dividend or interest revenue received from trading securities would be recognized by a debit to cash and a credit to the respective revenue account.

|                         |           |
|-------------------------|-----------|
| <b>Cash</b>             | <b>xx</b> |
| <b>Interest Revenue</b> | <b>xx</b> |

- iii. The journal entry for an increase in market value is made through the fair value adjustment account. For an increase (gain) the fair value adjustment account is debited and the Unrealized Holding Gain account is credited. The Unrealized Holding Gain is recognized through the income statement and is reported under the "other revenues and gains" section.

|                                       |           |
|---------------------------------------|-----------|
| <b>Fair Value Adjustment-Trading</b>  | <b>xx</b> |
| <b>Unrealized Holding Gain-Income</b> | <b>xx</b> |

- b. i. Available For Sale securities are any securities that are not characterized as Trading or Held to Maturity securities. The classification of an Available for Sale security is much more dependent on the management's intent with the security. If management is not sure that they will trade the security in the near future, but is sure that it will not hold the security until maturity, then it will be classified as Available for Sale.
- ii. Dividend or interest revenue would be recorded the same way as a trading security, with a debit to a cash or receivable account and a credit to the respective revenue account. If the security was sold at a premium or discount, the entry for revenue must be adjusted for the amortization of that premium or discount.

|                         |           |
|-------------------------|-----------|
| <b>Cash</b>             | <b>xx</b> |
| <b>Debt Investments</b> | <b>xx</b> |
| <b>Interest Revenue</b> | <b>xx</b> |

- iii. Similar to Trading securities, an increase in fair value of an Available for Sale security is recorded through a fair value adjustment account. However, the Unrealized Holding



Gain in this instance is reported through the statement of stockholders equity as Accumulated Other Comprehensive Income.

|  |           |           |
|--|-----------|-----------|
| <b>Fair Value Adjustment- Available For Sale</b> | <b>xx</b> |           |
| <b>Unrealized Holding Gain-Equity</b>            |           | <b>xx</b> |

- c.** i. Held to Maturity securities are Debt securities that a company has the positive intent and ability to hold to maturity. Equity securities are securities that represent some holding interest in a particular company. Since a company's operations are assumed to be relatively permanent, holding interest in it cannot be classified as having a maturity date.
- ii. Held to Maturity securities are reported at amortized cost. Therefore, the company does not recognize changes in fair value and there would be no entry.
- d.** i. The "Trading account assets" are reported on the balance sheet as \$637 million. Since Trading securities are reported at fair value, the amount on the balance sheet is the market value of those securities.
- ii. The adjusting entry to recognize the increase in fair value of the Trading securities is as follows:

|  |           |           |
|--|-----------|-----------|
| <b>Fair Value Adjustment-Trading</b>   | <b>85</b> |           |
| <b>Unrealized Holding Gain- Income</b> |           | <b>85</b> |

- e.** i. The year end balance of the "Investment securities Held to Maturity" is \$11,379 million.
- ii. The market value of these securities is reported in parenthesis next to the account title. The fair value is reported as \$11,661 million.
- iii. The amortized cost of these securities is what is reported on the balance sheet, \$11,379 million. Amortized cost represents the original cost of the security, adjusted for the amount of amortization taken into consideration for a premium or discount. Amortized cost is either higher for securities bought at a discount or lower for securities bought at a premium.
- iv. The difference in market value and amortized cost represents the amount of change in fair value over the year. Since the market value is higher than the amortized cost, it is assumed that the average market interest rate for the year ended higher than the respective interest rate at the initial purchase date.

- f.** i. The 2012 year end balance of the “Investment securities available for sale” is \$109,682 million. This balance represents the market value of those securities at year-end.

ii. The amount of net unrealized gains is \$1,119 million.

iii. The amount of net realized gains is \$55 million. This is recognized as “net gains from sales of investment securities” on the income statement. The \$55 million would be presented in the Operating Activities section of the statement of cash flows, as the purchase of such securities is one of the principal operations of State Street Corporation.

|           |     |                                       |               |
|-----------|-----|---------------------------------------|---------------|
| <b>g.</b> | i.  | <b>Investment in AFS security</b>     | <b>60,812</b> |
|           |     | <b>Cash</b>                           | <b>60,812</b> |
|           | ii. | <b>Cash</b>                           | <b>5399</b>   |
|           |     | <b>Unrealized Holding Gain-Equity</b> | <b>67</b>     |
|           |     | <b>Investment in AFS security</b>     | <b>5411</b>   |
|           |     | <b>Realized Gain on AFS</b>           | <b>55</b>     |

iii. The original cost of the security is the amount reported as “Investment in AFS security” in the previous entry. It is computed once the proceeds, unrealized gain, and realized gain are all known and considered.

**Conclusion:** Analysis of State Street Corporation’s financial statements provided valuable insight into the impact of different investment securities on a company’s finances. For example, distinguishing the difference between Trading, Available For Sale, and Held to Maturity securities is very important as the balance sheet, income statement, and statement of stockholders’ equity are all affected by the minor reporting differences of the three securities. If a trading security is wrongfully reported as an ASF security, then gains/ losses would not be reported in the income statement, where they should be, and would instead be reflected in stockholders’ equity (and vice versa). Similarly, if a Held to Maturity security were wrongfully reported as either a trading or ASF security, then the year-end amount reported on the balance sheet would be inaccurate. Since State Street has significant holdings in all three types of securities, it is important that the corporation carefully and accurately account for those securities in order to maintain the accuracy and integrity of its finances. The accounting for

different investment securities is key in that it has the potential to affect nearly every aspect of a company's financials.

**Case Study Eleven**

**Analysis of Deferred Income Taxes: ZAGG Inc.**

**Nick Egorshin**

**Introduction:** The following case study consists of the analysis and examination of deferred tax assets and liabilities as well as their effect on a company's financial statements. Due to the separate recognition of tax expense to be reported on a financial statement and the tax to be paid as per its tax return. Case study twelve examines the tax items reported by ZAGG inc. in order to more fully understand the impact that these items has on the company's financial statements.

- a. The term "book income" is also known as a company's pre-tax financial income. Book income is used for financial reporting purposes and is determined according to GAAP. This amount is found in the income statement. ZAGG reports pre-tax financial income as \$23,898 under the section titled "Income before provision for income taxes". Taxable income is the amount of income that the company is expected to pay taxes on and is determined according to the Internal Revenue Code. Pre-tax financial income is accounted for on an accrual basis whereas taxable income is accounted for on a cash basis. This difference can lead to discrepancies between the timing of the tax payment and the recognition of the revenue.
- b.
  - i. **Permanent Tax Differences-** A permanent Tax difference is a difference between the tax expense recognized and the income taxes that are payable. This difference is caused by a discrepancy between GAAP and the Internal Revenue Code and it cannot be reversed. An example of a permanent tax difference would be interest earned on Municipal Bonds. This income would be recognized for financial reporting purposes, but would not be accounted for as taxable income.
  - ii. **Temporary Tax Differences-** A temporary tax difference refers to the difference between the tax basis of an asset or liability and its corresponding carrying amount in the financial statements. This difference results in taxable amounts or deductible amounts in future years, meaning those differences can be reversed over time. An example of a temporary difference would be when a company receives rent income in advance. The company would not recognize the revenue until the appropriate time has passed, but it would have to recognize that prepaid amount as taxable income on the tax return.
  - iii. **Statutory Tax Rate-** The statutory tax rate is the tax rate that is mandated by the law. This rate can change over time based on the administration in power at the time and what the state of tax policy is.
  - iv. **Effective Tax Rate-** The effective tax rate is the proportion of tax actually paid in relation to book income. It is calculated by dividing the tax expense by the book income.

This rate is often different from the statutory rate as large companies often pay taxes on revenue in other countries where the tax rates are more favorable.

- b.** A company must report deferred income taxes as a portion of their total income tax expense in order to accurately recognize the tax liability to be reported for the period. If a company neglects to report deferred income taxes, it will inaccurately represent the taxes that it is potentially responsible for in future periods. ASC 740 lays out the conventions companies must adhere to in order to appropriately account for income taxes. ASC 740-10 is dedicated specifically to the accounting of tax positions taken in a tax return that directly or indirectly affect amounts reported on the financial statements. This section of the code is crucial to companies filing financial reports. As mentioned earlier, discrepancies between the tax expense recognized on a company's tax return and on their financial statements cause the company to adjust for those differences. The accounting for such an event closely follows the expense recognition principle. ASC 740 states that a company must report both the expected income taxes payable as well as the deferred tax assets or liabilities incurred. For temporary differences, the company must adjust those differences in future periods. As stated in the expense recognition principle, a company must recognize expenses as incurred. ASC 740 is the all-important code that guides companies in thoroughly and accurately recognizing tax expense in order to ensure that the amounts reported correspond with events that affect that expense.
- d.** Deferred tax assets are reported by a company to represent the amount it will deduct from future income taxes payable. This amount is indicative of what a company has already paid in taxes, but not recognized as a tax expense in the financial statement. A deferred tax liability is the opposite of a deferred tax asset. A deferred tax liability arises in the event of a temporary difference caused by a discrepancy in the tax code and the conventions for financial reporting. Accounting for income taxes can be complex, but when considered in a similar fashion to the accounting for prepaid items, the accounting for deferred tax assets and liabilities becomes more straightforward.
- e.** A deferred tax asset is usually recorded under the assumption that the company will be able to generate enough revenue to realize the amount for which the asset was recorded. However, some deferred tax assets expire after a certain period of time, which impedes the company's ability to realize that asset's total value. If the company determines that there is more than a 50% chance that it will not be able to generate enough income to reverse the amount realized as a deferred tax asset, then the company will establish a deferred income tax valuation allowance account. This account is recorded on the balance sheet and is recognized as a deduction to the deferred tax asset account.

- f. i. The journal entry for the income tax provision is as follows:

|                         |       |        |
|-------------------------|-------|--------|
| Income Tax Expense      | 9,393 |        |
| Deferred Tax Asset, net | 8,293 |        |
| Income Taxes Payable    |       | 17,686 |

- ii. The journal entry for “net deferred income taxes” is as follows:

|                         |       |        |
|-------------------------|-------|--------|
| Income Tax Expense      | 9,393 |        |
| Deferred Tax Asset, net | 8,002 |        |
| Deferred Tax Liability  |       | 291    |
| Income Taxes Payable    |       | 17,686 |

iii. ZAGG’s effective tax rate is calculated by dividing the tax expense by the book income. Upon calculation, ZAGG’s effective tax rate is to be reported as 39.03%. This difference arises due to the recognition of revenue in different states and the realization of that state’s own income tax rate.

iv. The net deferred income tax asset balance is the sum of the current deferred tax assets and the noncurrent deferred tax assets that are reported on the balance sheet. Those amounts are \$6,912,000 and \$6,596,000 respectively.

**Conclusion:** Upon thorough analysis of ZAGG’s financial statements and the tax amounts it recognizes in income taxes, one is able to gain a more complete understanding of the differences between deferred tax assets and deferred tax liabilities. These differences affect many aspects of the company’s finances as allowance accounts may be generated and the company may be expected to adjust for some of those differences in future periods.

## **Case Study Twelve**

### **Analysis of Revenue Recognition Principles: Apple Inc.**

**Nick Egorshin**



**Introduction:** Revenue recognition is an aspect of any business' operations that can get complex due to some of the discrepancies that can arise between when payment is received for an item and when the company should appropriately recognize the revenue that aligns with such payment. In order to standardize the methods companies use to recognize revenue, the FASB issued ASC 606- the new standard for recognizing revenue from contracts with customers. The following case study examines these new standards to be put into place and how they will specifically affect Apple's recognition of revenue in regard to some of their specific product lines.

- a. Revenues arise as a result of a company either completing an obligation that is closely tied or related to that company's main operations. Some revenues may come from selling a product, while others may come from completing a service. Revenue is the amount that the customer is paying to have that obligation fulfilled. Gains differ from revenues in that they are an amount that a company earns from completing an activity other than its main operations. For instance, if a company specializes in the manufacturing and selling of televisions, but earns income from the sale of one of its utility vehicles, that income would be recognized as a gain rather than revenue. A gain is also typically figured by a difference in the fair value (an appraised or generally accepted market value) and the book value (the amount the seller values the item at) of the item being exchanged.
- b. The new revenue recognition standard ASC 606 considers how companies properly recognize and align revenues from contracts with customers. Revenue recognition can get notoriously complicated when considering the variety of products or services a company can sell and the differences that arise between the fulfillment of different obligations. According to the AICPA, the core principle of ASC 606 is that "an entity should recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services." As part of the new revenue recognition standard, the FASB laid out five conditions that must be met in order for a company to be able to recognize revenue. Those five conditions are as follows:
  - (1) Identify the contract with a customer
  - (2) Identify the performance obligations in the contract
  - (3) Determine the transaction price
  - (4) Allocate the transaction price
  - (5) Recognize revenue when or as the entity satisfies a performance obligation

Prior to the recognition of the existence of a contract, the company recognizes any consideration received from the customer as a liability. Doing so denotes the company's obligation to either transfer goods or services in the future or refund the consideration it has received. Once the contract is verified as valid, the company must then identify within the contract either a good/service that is distinct or a series of distinct

goods/services that have the same pattern of transfer to the customer. This step is the identification of obligations the company has committed to fulfilling. In determining the transaction price, the company must determine the amount of consideration that it expects to receive in exchange for transferring promised goods or services. Consideration provided by the customer may vary due to discounts, rebates, refunds, credits, or other similar items. In the case that a contract contains variable consideration, the company must estimate the amount of consideration expected by using one of two methods: the expected value method or the most likely amount method. Once the expected consideration is computed, the company must allocate the transaction price to the contract. This step can get complicated if multiple performance obligations exist. In order to properly account for multiple obligations, the company must determine the stand-alone selling price of each distinct obligation. If that amount is not directly stated, the company should estimate it using either the adjusted market assessment approach, the expected cost plus a margin approach, or the residual approach. Finally, a company recognizes revenue when (or as) it satisfies a performance obligation by transferring a good or service to a customer. The good or service is considered transferred when the customer assumes control. Some indicators of the transfer of control of a good or service include but are not limited to the customer having legal title to the item, the transfer of physical possession of the item, or the customer having assumed the significant risks and rewards that come with ownership of the item. If a performance obligation is satisfied over time, the company must recognize revenue by measuring the progress toward completion of the performance obligation and realizing the proportionate amount of revenue it has earned.

As evidenced by the information above, revenue recognition can be complicated and have many far-reaching implications for a company. In regard to the new standards set by the FASB, revenue and liability accounts will fluctuate and be directly affected when recognizing revenue. These fluctuations affect amounts reported on the balance sheet, amounts recognized through the statement of cash flows, and the revenues to be recognized in the income statement.

- C.** Apple has set out its own individual standards for revenue recognition. According to Apple's most recent Annual Report, the four conditions that must be met in order for Apple to recognize revenue are as follows:

- (1) Persuasive evidence of arrangement exists
- (2) Delivery has occurred
- (3) Sales price is fixed or determinable
- (4) Collection is probable

In comparison to the standards set by ASC 606, Apple's standards seem less strict in terms of ensuring the existence of a contract and the exchange of consideration.

These slightly more lax terms could pose problems for Apple later as the new standards are enforced and questions arise as to the legitimacy of an arrangement or collection of consideration. However, it is most likely that Apple's conditions to recognize revenue are inclusive enough to also meet the standards set by ASC 606.

Apple's Annual Report also featured certain instances in which the company takes deliberate measures in regard to revenue recognition. For instance, Apple defers revenue on online sales to individuals and to some sales to education customers in the U.S. until customers have received the item because Apple still retains a portion of the risk of loss while those sales are in transit. Apple also stated that on certain products, it might provide future unspecified software upgrades to the device's essential software and/or non-software services free of charge. Apple allocates a value to those software upgrades through estimates made by management that are known as the best estimated selling price (ESP). Revenue allocated to the unspecified software upgrade rights and non-software services based on the company's ESPs is deferred and recognized on a straight-line basis over the estimated period that the software upgrades and non-software services are expected to be provided.

- d. Multiple element contracts are ones in which the company is expected to perform multiple performance obligations, which may have differing implications in regard to revenue recognition. For instance, one transaction could consist of Apple selling a computer (hardware) with software on it that it needs to run. As mentioned earlier, sometimes that software might include unspecified upgrades that the company must also value. In such a transaction, Apple would need to allocate the standalone-selling prices of the hardware and software as well as apply a method for estimation to determine the value of the upgrades. This is a simplified example of how complex a contract can get when one aspect of it may have a consistent method of accounting while another aspect of the contract may be subject to change over time. In such instances, the expectations of when revenue for the entire transaction should be recognized can become difficult to discern.
- e. Management may have a significant influence in how revenue is recognized for certain products, especially if an estimation is required to determine transaction price or amount of consideration. In general, a manager's main financial objective is for the company to be as profitable as possible. In order to maximize profits, the company must maximize revenues as well. More revenue and more profit may help the company's stock price in the short term and may even personally benefit the management involved. As a result, managers would typically be more inclined to make decisions that maximize revenue in the short term. Those decisions might be beneficial in the short term, but could pose problems later if management makes those decisions with short-term profit as the priority as opposed to prioritizing the proper accounting for recognizing revenue.

- f. i. For iTunes songs sold online, Apple should recognize revenue as the transaction occurs. There is a set price agreed upon by Apple and the customer, and typically when a customer purchases a song, it is immediately downloaded to their device (control is immediately transferred). However, Apple may not recognize the stated price of the song in its entirety as revenue as it may have an agreement with the artist that owns the song to give them a portion of the proceeds. Apple would recognize the portion it receives as a result of the transaction as the revenue generated.
- ii. For Mac branded accessories sold in store, the revenue associated with that sale would be recognized as the sale occurs. The customer is physically present to immediately assume control of the item and Apple is able to immediately transfer physical control of the item. For those same accessories sold online, Apple does not recognize revenue until the customer receives the item. As mentioned earlier, this is because Apple assumes some risk while the goods are in transit, so it defers revenue until the customer has received the good.
- iii. iPods sold to a reseller in India would be treated the same as mac branded products sold online. The customer would not be assuming control of the products until they are received, so Apple should not recognize revenue until those items are received.
- iv. The purchase of gift cards is a more unique example of how the company should recognize revenue. When a customer purchases a gift card, they are essentially purchasing the right to receive a product or service in return in exchange for the consideration provided for the purchase of the card. At the date of purchase, Apple has not turned over control of any goods or services in exchange for the consideration received, so it must record that revenue as deferred revenue until the customer redeems that gift card for whatever they plan to buy.

**Conclusion:** The case study above provides an analysis of Apple Inc.'s product lines and how the company recognizes revenue on those products in accordance with the appropriate standards for revenue recognition. In order to gain a greater understanding of the effects that revenue recognition can have on a company's financials, one must first understand the difference between revenue and gains. By doing so, one realizes that the recognition of revenue is tied to the company's satisfaction of obligations made pertaining to the company's main operations. As evidenced by the case study above, Apple's main operations consist of selling a variety of products, some of which require different methods for revenue recognition. This is where recognizing revenue can get difficult for Apple as some figures in a transaction might be stated and others might need to be estimated. The differences associated with revenue recognition are illustrated in part 'f' when different product lines are assessed and considered in

regard to the recognition of revenue. Overall, the difficulties associated with revenue recognition are certainly plentiful when considering a large company like Apple. However, with the introduction of ASC 606 and the standards Apple already has in place for recognizing revenue, the methods for doing so become less ambiguous.

**“On my honor, I pledge that I have neither given, received, nor witnessed any unauthorized help on this Case Study” signed Nick Egorshin**